REMARKS/ARGUMENTS

Claims 1-9 are pending in the application with claims 1-2 rejected. Reexamination and reconsideration are hereby requested.

Claims 1-2 were rejected as anticipated by Harrison.

Applicants reply that Harrison relates to transmissions from multiple antennas, and the multipaths from a single antenna are combined into the impulse response for the channel from that antenna to the receiver; see column 3, lines 1-3. That is, multipaths are only implicit for Harrison; rather, the multiple antennas and thus multiple channels are weighted for direction transmissions. In particular, the column 3, line 58 matrix $R_A = A^H A$ of correlations of impulse responses is an nxn matrix where n is the number of transmitter antennas. For a single channel with multipaths, Harrison has a 1x1 "matrix" R_A which is just the energy of the impulse response for the channel. Indeed, if matrix A in column 3, lines 59-62 is the single column vector $\begin{bmatrix} \alpha_1(1) \\ \alpha_1(2) \\ \vdots \\ \alpha_1(M) \end{bmatrix}$ corresponding to the impulse response for channel 1, then the "matrix" is $R_A = \sum_j |\alpha_1(j)|^2$.

In contrast, the claim 1 matrix is of covariances of the multipath inputs, and the eigenvector is used to weight the multipaths for combination. Contrarily, Harrison has weights for the differing antennas for directional transmission, not for multipath combination. Consequently, claim 1 and its dependent claim 2 are not suggested by Harrison.

Respectfully submitted,

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